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A 1952 Management
Conference Paper

Decentralized Accounting in Multi-Plant Operations

by Carl M. Blumenschein

A POLICY of strictly decentralized management, observed by Container Corp. of America throughout its many properties, is bulwarked by decentralized accounting. In this way, each general manager becomes properly equipped to handle *all* phases of management.

SURVEYS show a constant rate of growth of salaried personnel in relation to that of hourly workers. To put it another way, administrative effort per hour of direct production effort is steadily increasing.

Some interesting statistics from the National Industrial Conference Board portray the changes that have taken place in the relationship between clerical and management type of personnel to that of skilled, semi-skilled, and unskilled workers in industry. They indicate the following:

In 1910 there was one management and clerical employee to 2½ plant employees. In July, 1952, this relationship was one management and clerical employee to 1½ plant employees. The change has been at a steady rate—in 1910, 1 to 2.5; 1920, 1 to 2.2; 1930, 1 to 1.8; 1940, 1 to 1.7; and in July, 1952, 1 to 1.5.

If we take these same statistics and include only clerks in the salaried groups, we find the following relationships: in 1910, 1 to 4.0; 1920, 1 to 3.2; 1930, 1 to 2.6; 1940, 1 to 2.6; and in July, 1952, 1 to 2.5.

In a recent article in the September-October issue of the Harvard Business Review, Ralph W. Fairbanks brings out rather forcefully the mounting paper work requirements in the following statement:

"In 1920 statistics showed a ratio of 11 clerical employees for every 100 factory workers," Mr. Fairbanks declared. "Today for the same 100 factory employees 25 are employed in the office. Production costs have gone steadily downward, while office costs are soaring to new heights. Clerical employees today outnumber agricultural workers in this country."

While all these statistics do not completely agree, they still indicate an alarming trend.

We all appreciate that a good part of the increase in administrative effort has been brought about by the creation and demands of various governmental agencies and in part is a consequence of the development of scientific management. On the other hand, not enough

care has been taken generally that these added efforts in the administrative departments of business are efficiently executed; notwithstanding the tremendous advances which have been made in the introduction and use of mechanical methods in office procedures.

I believe that the study of better methods is not necessarily the function of a systems department alone. It should, and must be, a part of the responsibility of every department head. It must be as much a part of his job as the selection of proper personnel and the production of his department.

All Accounting Functions

Decentralized accounting in our company represents the performance of all of the accounting functions necessary to produce an earnings statement for each property and all the supplementary statements and data which a plant general manager requires to operate his plant effectively, as well as all statements which the executive office requires in order to issue periodic financial and related statements. These functions at each property include the preparation and payment of the hourly payrolls; processing and preparing supplier's invoices for payment; preparing and issuing invoices to customers; keeping property records and inventory controls; making all accounting distributions from these basic records; preparing all plant production, job and cost reports, and such other reports which are incident to the entire accounting function and finally, preparing the closing journal and ledger entries for the plant accounts and issuing the monthly earnings statement and supplementary statements and reports to the executive offices.

As to the organization of each plant—all plant accounting comes under the supervision of what we term the plant office manager. The office manager reports to the general manager of a plant, the general manager, in turn, to the divisional vice-president. Under this organizational structure, the office manager becomes one of the local plant management team, along with the production and sales manager, reporting to the general manager. As such, then, the office manager is in every sense, the controller for his particular plant, being responsible for all accounting, cost budget, clerical, and personnel functions and for the application of effective systems and methods necessary for the execution of these functions.

Under this form of organization, it is apparent then that the office manager, who is responsible for all accounting and allied functions, does not report to the controller directly, which may seem a bit anomalous. However, from the standpoint of management development and progress, there are obvious and very strong and overpowering advantages to such a scheme. Nevertheless, the obvious problem of control evidences itself.

Container Corporation consists of 40 plans distributed throughout the United States and unconsolidated subsidiaries in So. America and Mexico. One might ask, "What are the reasons and what is the basic philosophy behind the theory of decentralizing the accounting functions in our company?" The reasons for this theory flow primarily out of the philosophy of decentralized management in the company. It is the management philosophy of the company that each general manager be equipped to handle all phases of management. He is responsible for the local and the area sales and production problems and is responsible for the profits of his plant and the proper maintenance of the plant and equipment. The general manager is responsible for the training and development of men and personnel in his property for the future management needs of the company.

Under this form of organization, the general manager of a plant has considerable freedom of action in all matters pertaining to the management of his plant and is guided only by broad corporate policies issued by the executive offices. The general manager, operating under this broad framework of corporate policies, must have considerable business judgment and acumen.

Under this form of management, I sincerely believe that decentralized accounting is the only answer and must be applied in order to round out the complete function of the general manager.

Serves The General Manager

Basically, accounting is decentralized in our company to serve the purposes of the general manager and to accommodate within broad limits the philosophy of decentralized management. Under these circumstances, the problem becomes one of accomplishing a uniform and coordinated whole so that all properties merge into and become one organization in fact, to preserve the singleness of character, ideals, and purposes of the corporation. The principal function of the executive offices is to serve this desirable purpose by establishing principles and policies covering all phases of management.

We will discuss the methods of control of the accounting phase of management from the executive office standpoint.

Recognizing the broad dispersion of our properties and the production of seven principal paperboard products with hundreds of commodity sub-divisions, the first means of control is the establishment of uniform reports and forms on which the monthly accounting data is prepared. Each property reports its results in an identical fashion to the executive offices using identical forms, a simple

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uniform chart of accounts, and uniform principles of accounting.

It is immediately obvious that the consolidation of such reports becomes a comparatively easy task. However, unless the theories of sound system and methods engineering are applied, this step alone serves only part of the purpose. As an example, for quite some years, each plant's closing entries were posted separately in the general ledgers and corporate books, necessitating considerable effort and endless difficulty in closing the books monthly and consequent delay in issuing final financial statements to management. There was obviously something very inefficient in this procedure.

Therefore, in an analysis of the steps, we found that by redesigning the forms and arranging all the essential figures needed to prepare the financial reports on a set of three peg board strips prepared by each plant, the entries of all 40 plants are first consolidated into one and then posted into the general ledgers of the corporation. Two days were cut off the time it takes to prepare the consolidated financial reports. The final monthly consolidation is prepared in less than twelve calendar days of the following month with no overtime effort. With a bit of extra effort, in order to meet certain corporate requirements, we have issued complete financial statements by the eighth of the month.

Manual Second Control

The second method of control is embodied in what we term the Procedure Manual. All policies, procedures, and methods employed in the accounting and clerical phases of the corporation are in written form and incorporated in this manual. One of these manuals is in the hands of each plant office manager. We have contended, and I believe successfully so, that a procedure cannot be depended upon to function unless it can be reduced to writing in concise, clear, and understandable language. Beyond serving its primary purpose as a control in the uniform application of policies, the manual serves excellently as a reference manual for the training of new personnel. Its greatest value, however, lies in the fact that procedures are outlined in writing and lend themselves to uniform application and improvement.

The third method of control evidences itself in the study of various comparative reports and statistics which are prepared by the Statistical Department of the Controller's Division from the reports of the plants.

We are great believers in the value of comparing the various cost and sales elements of identical products and plants with one another. These comparative reports and statistics, while they may conceal vital accounting facts, nevertheless suggest that a plant might not have handled accounting charges in accord with corporate accounting policy.

Now one can well question whether the imposition of identical systems and methods might not lead to stagnation and whether such an approach might not kill all incentive for initiative and new ideas. I believe that such a situation might well prevail. However, the answer to these questions leads me to the fourth and most important method of control; the operation of the internal auditing procedure. It is through the functioning of this activity that I believe the most effective work is done in the control of accounting activities by the application of certain definite principles in the sound execution of control.

No Policing Expedition

Our internal auditing does not operate on the theory of its being a snooping or policing expedition into the operation of a plant; neither does it operate on the theory that everything is wrong unless proven otherwise; nor is it necessarily a procedure to determine the mathematical accuracy with which a local plant is handling all phases of the accounting function.

It is rather an activity designed to audit the procedures of the office; it is one designed to be helpful to the local office manager through discussion of effective and successful procedures in other properties and by stimulating the office manager to develop his own short cuts and efficiencies. Further, it is one designed to assist the office manager in his relationship with the other members of the local management team.

We feel rather strongly that mathematical accuracy almost invariably results if a procedure is properly instituted and followed. For example, if proper internal checks and balances are preserved in the handling of property and funds of the company, misappropriation of funds tends to be eliminated.

The staff of internal auditors ordinarily consists of three young men headed by a senior man from the staff of the controller's assistants. This staff of auditors is made up of the brightest young men we can either hire or promote within the organization. We feel that these men, who are not hampered with fixed ideas and processes of thought, will exercise the greatest objectivity in the analysis and the review of procedures. To assist in the control of accounting, the primary purpose of internal auditing is to improve systems and methods and become the exponent of better methods throughout the organization.

The men of the auditing staff, along with all members of the controller's department, are constantly instilled with the thought that "There must be a better method." Better methods tend to be a religion in the controller's department and the common question on every procedure is,—Can we do without it or can we improve the procedure? Through the efforts of the controller's department and through the efforts of the audit staff, every

office manager becomes entirely procedure conscious.

It might appear that three men are totally inadequate to cover 40 plants under this type of control. However, it is interesting to note that these three men can make the rounds of the 40 plants each year and by the application of these theories can audit adequately all plants, keep the accounting controlled, and instill in the office manager the will to search continuously for improvement of office procedures under his control.

After the auditor has reviewed all of the procedures in a property, he discusses with the office manager and general manager improvements which he feels should be made. When he returns to the executive offices he writes a detailed report of his findings to the office manager with copies of the report-letter going to the divisional vice president, general manager, and the controller. The office manager then studies the report and replies indicating the changes and procedures he has effected and also indicating the items with which he is in disagreement. It is at this point that the controller and his staff assistants study the situation and decide whether further discussion should be held on the subject and whether the problem should be handled as a policy matter at a higher level.

The auditor, under such a circumstance, does not have the authority to change any procedures. However, he must have the necessary qualities of leadership and the ability to convince the local management of the desirability of change, improvement, and correction, if any is needed.

We believe, then, that the greatest control of decentralized accounting in a multi-plant organization evidences itself in the proper application of the sound theories of systems and methods and, above all, in the ability of progressive and objective auditors to sell their ideas.

Naturally, to sell ideas, a man must be one who can get along well with others. In keeping with what Stanley C. Allyn said: "Today the most useful person in the world is the man or woman who knows how to get along with other people. Human relations is the most important science in the broad curriculum of living." We are extremely careful in the selection and training of these men, keeping in mind the importance of their ability to get along with other people.

There is still one other method of control which is less positive, but nevertheless still one of great importance. We try in our company in all our control activities to keep human values in mind. I mean by this that we attempt to make every function something alive in the mind of the person doing the job; something which makes him feel that he is important to the business. We try to make certain that he understands the source of the material he is working with, the purpose of his function, and the use to which his finished product is put. If this theory is followed, any job becomes one of real interest to the person doing it and I think obviously the importance of accuracy in the job and the importance of corporate policy becomes apparent in the mind of the individual. It seems to me therein lies another form of control which is frequently overlooked. I think we must be particularly alert to this fact whenever we mechanize any of the office or accounting functions.

In conclusion, then, we have five vehicles or means by which we control accounting in our decentralized organization: (1) Uniformity of reports and methods; (2) Written procedures; (3) Study of statistical reports; (4) Operation of the internal auditing department, and (5) Recognition of the importance of the individual to his job and his value to the company. **s/p/a**

Co-ordinating Methods

SHOWING that systems work is not "essentially and entirely of a clinical nature . . . the eternal smoothing out of small routines . . ."

by John H. Strube

THERE has been a twelve-fold increase in the ratio of clerical employees to productive employees during the last 50 years. And there has been a four-fold increase since 1935. These, or similar statistics, are being hammered home to management as a reason for adopting improved office systems or procedures but, notwithstanding all the publicity, there seems to be a strange complacency on the part of many business leaders to accept the status quo as being a "normal" situation and one about which little can be done. Why?

Perhaps the answer lies in an observation made by Frederick W. Taylor more than 50 years ago when he faced a similar condition in the industrial field: "As a rule, this leader rose from a more or less humble position in one of the departments, say in the commercial or the manufacturing department, until he became the head of his particular section. Having shown especial ability in his line, he was for that reason made manager of the whole establishment. . . . Management is still looked upon as a question of men, the old view being that if you have the right man, the methods can be safely left to him."

However, it is more likely that the answer lies with us whose job it is to try and develop ways and means of correcting this adverse ratio. Perhaps we have been more concerned with the application of specific tools to specific problems and the installation of piecemeal routines, than with the overall job to be done and, consequently, have not properly sold the idea of fundamental or basic improvement.

For example, there flows across my desk each week a veritable flood of magazines, pamphlets, articles, vendor brochures, notices of meetings, of books, etc. all dealing with various aspects of the subject of procedures. Most of these are written from the standpoint of the small business, or of a small segment of a large business, and stress a particular application of a machine, of a form, or of a gadget and the happy solution which was achieved from the change. From a reading of many of these articles, one would get the idea that systems and procedures work is essentially and entirely of a clinical nature — the eternal smoothing out of small routines; the redesigning of forms; or of the installation of gadgets or mechanization of a routine for the correction of a minor and, in many cases, unrelated problem of paperwork flow. True, these solutions to the run-of-the-mill problems are important and worth-while, but their use to the exclusion of basic analysis and broad planning of fundamental paperwork is analogous to a doctor attempting to cure a case of measles by medicating each spot. These smoothing out efforts, or correction of minor functional problems, should logically come after, and not before, a broad and comprehensive review of the organizational relationships of a business, as they affect paperwork.

The fact is that the major cause of excessive clerical work may well be an inconsistent relationship of departments or sections to one another and the creation of duplicate or alibi records. While we obviously are not in position to change these organizational set-ups, we do have an obligation to management to inform them of the possibilities which exist to improve efficiency and then to let them decide whether other factors dictate continuance of organizational patterns which, from a logical paperwork standpoint, are inconsistent.

Personnel considerations in far too many instances dictate the organizational set-up. Granted that they shouldn't and that the only proper rule for management to follow is to "define the job and then find the man" — the unvarnished truth is that this rule is frequently ignored and groups, sections, and even, sometimes, whole departments are set up around a strong individual rather than around a consistent and logical function. And, with a pattern once having been set, the possibility of its continuance is great once the reasons which dictated its

start have passed. The point might be raised that considerations of this type are the job of management and that we are procedures men. But, if inefficiencies in basic management policy contribute to inefficiencies in paperwork flow then, it seems to me, and as mentioned before and repeated for sake of emphasis, we are not only privileged, but obligated, to point them out at a level which will permit management to decide upon continuance with full knowledge of the facts involved.

Many managers who are interested in doing something along procedures lines, and who make a study of the problems involved, become painfully aware of the fact that this is a specialized and highly technical field and that experience in accounting techniques or supervision of operating sections does not qualify, per se, an individual to do an effective job in the streamlining of business procedures. During the past few decades, many effective and hard hitting tools have been developed to help in this work, such as charting techniques, forms control, clerical cost analysis, machine applications, etc. and their use has become a specialized and highly technical operation. Unless they are applied logically and understandingly, as well as technically, the end result might be anything but satisfactory. And, if management decides that they are going to "take all the medicines at one time," they might find that the cure is worse than the disease.

Change Comes Hard

There is also the known obstacle that changes come hard — particularly in office routines. Managers are aware of the fact that if they aggressively back a change, they must expect to spend the time to become sufficiently familiar with the basic elements of the routine to help get it across or else assume a measure of responsibility if it fails. Consequently, the attitude is frequently taken that, if the change is worth-while, it can be introduced on the strength of its own merits and, if it dies aborning, it was inherently faulty. This philosophy is similar to the pagan custom of placing newborn infants on the cold floor of a temple and then awaiting the response of the gods as to their fitness to live. This approach may, unwittingly, place the procedures man in the unenviable position of either assuming a measure of management responsibility, without commensurate authority, to do those things which will give the new routine a reasonable chance of successful survival, or else, in many instances, of so modifying the basic elements of the plan as to rob it of its merits.

One of the basic reasons for the above condition, if it does exist, is the fact that procedures work is in far too many instances assigned on the organization chart to one of the functions, rather than to a staff position at top level. As such, it falls heir to all the political intrigues and sectional bickerings so common in practically all organizations. To illustrate: I have visited many offices in the company of equipment salesmen to observe their equipment at work. In one large company plant where the production scheduling and payroll work was being done by cards, the plant inventory records and the cost records were still being handled by manual means with machine tabulations being hand posted, compared, and computed. The supervisor in charge told me, confidentially, that he had no use for the method that the "accountants" had put in and he bragged that "they" would never put it in *his* section. In another case, curiosity caused me to unknowingly step over a sectional boundary line and it took some embarrassing moments to get proper approvals, grudgingly given after the fact from a self-appointed emperor. Let's admit that one of the chief causes of inefficiency in large business organizations is the empire building which is rampant in the name of sectionalism. And then let's do something about it.

Breadth of Vision Needed

Perhaps the reason why procedures work in many organizations is buried to its detriment is that the person responsible for the activity has not demonstrated a breadth of vision or an adaptability which would justify management in giving him a free hand to operate inter-departmentally. If so, then the obvious thing to do is to recognize the importance of the procedures work and get someone competent to lead the activity on an overall basis; someone who is a good craftsman with respect to the tools of the trade but who, also, is able to sell his broad programs and secure results on company-wide bases.

Up to now we have been discussing the use of procedures work as a cost saving technique, which we can call the "negative" aspect of this work. But there are other and positive phases which can be just as important. Take, for example, the assistance which can be given the marketing organization in the integration of sales reports, budget determinations, even sales campaigns to help increase business. The marketing manager, after a suitable warm-up, would appreciate an *unsolicited* plan which integrates his ideas on what the marketing records should show and he will not object if those same records are the ones which best supply the accounting department with what they need.

The production manager has ideas on what he would like and he would have no objections if a broad plan

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Why An Annual Progress Report?

by John P. Morgan

The author pleads the case for formal presentation of accomplishments for the year—and in depth, too, if necessary. "We really have a bigger stake in management's understanding of the systems function . . ."

WHAT do you do with the used up date stubs on your calendar pad? Do you throw them away, like most of us? Or do you think of them in the same way as cancelled checks? Don't you sometimes review your cancelled checks to see how you've spent your money? It's a fact that some people do. In the same way, we could review our calendar stubs to see how we've spent our time. Date stubs can mean, of course, diaries, files, final reports on procedure changes, ideas sold, accomplishments made during the year.

To begin with, there is a sound basis for an annual check-up of this sort—both from a company point of view and from a personal viewpoint. The kind of check-up I'm writing about is more than a mere mental review. It should be done in a formal way, put down on paper for you, your staff, and your boss to look over. Such a report is a combination of factual and statistical data combined with personal observation and recommendations. In fact, it's like a cost accounting system, in principle. In cost work, the overall idea is to isolate the profit makers from the losers. A firm puts in a cost system when it finds its regular financial, operating, and statistical reports don't give all the facts needed by mangement. We, who are engaged in systems work, are firm in our belief that management should be informed on its various operations. We do not like to see isolationism in our companies. We should be the first ones to set a good example by reporting our own operations. Perhaps through our leaderhip the idea would be extended to all department heads in the business. In this way, each of us would help management in one of its biggest problems. It would help them evaluate the strength and weakness in their departmental programs. This, in turn, would set up a basis of discussion between the top man and his executives and help insure careful attention to departmental planning.

Today, most facts of this nature are passed up and down the line over lunch tables, in corridors, or not at all—"no news is good news," some people believe. Many people must wait until the "time is just right" before they take the cover off their plans. All of these attitudes build walls around departments, behind which executives can become complacent about their work.

To overcome this, the systems people can start now to give their management a report of stewarship as to progress and improvement in their programs. We really have a bigger stake in management's understanding of the systems function than many other executives have. Such reports present a real chance to make our influence felt,

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This article does not in any way represent the policy or viewpoint of the California Western States Life Insurance Co. The author has followed the practice himself for several years, especially in former companies.—AUTHOR'S NOTE

MR. MORGAN is methods analyst for the California Western States Life Insurance Co., in Sacramento. He is also an instructor at Sacramento Junior College.

because the opportunity lies first of all in identifying and reviewing the basic policies and programs that make up the planning activity. In other words, we should simply make a report that shows our program goals and our progress in their accomplishment.

In this respect, the report would also give the systems and procedures department the basis for *objective* appraisal of their accomplishments during the year. This alone is something system folks want other people to do. Let's take our own medicine. Besides, it gives us a good medium for presenting suggestions and recommendations, and to clear long range plans with top management. We all know that in most work it's necessary to sell the value of the work. This is probably more so in methods work. No doubt, this selling must be of a factual nature, but it is very important that we bring the facts before the right people. Consider yourself a public relations man. Public relations sells ideas that create good will. This is the opportunity to prove you and your staff are doing worthwhile things. Most of all, it's a chance to show the value of your function: Also, that your department is observant, thorough, accurate, orderly and resourceful. It will help establish your technical competence; administrative duties are more important than political duties. A reputation is not made by the position on the organization chart, but by competence. However, before competence can be judged, it is necessary to establish confidence in you and your function.

Encourage Interest

So, there's a good reason to believe that an annual report of this type will be helpful to management. It is especially helpful when it emphasizes the wide range of planning department activities; because almost every department is affected by one or more projects during the year. Continuity of executive interest in the systems function will be facilitated in this way. The executive may use the report as the basis for making important changes or even for getting approval of an appropriation of large sums of money.

In addition, if you are a "builder of men," the report provides a way of giving due credit to subordinates. It may stimulate them to do even better work. Last of all, these reports provide a log of planning work that can be used whenever related activities come up for study or discussion.

One reason, however, for the lack of adequate reports of this type is the lack of an orderly way of keeping the record. Only a few companies keep the detailed project analysis data necessary to compile a good record of what has been done. There are several ways to keep track of accomplishments. One way is to keep a log or notebook in which is entered the date of the assignment, person assigned, results accomplished. Tie each entry in the log to the appropriate file folder where you can find complete facts. Another method is to use a daily diary. Some companies use their project assignment cards as the basis of the report. Some people merely drop a handwritten note on each completed project or idea in their follow-up file, to come up about November fifteenth each year. Other executives file project folders in a special location in file cabinets so they can be withdrawn and used whenever needed. The material is sorted and analyzed according to recognized standards.

Once the method of keeping track of report material is worked out, the contents of the report comes up for consideration. Here are a few suggestions (It might be divided into three broad parts): Part I would be the introduction. Here you can state the subject, purpose, limitations, and how the report is planned out and developed. In this part tell why you're writing the report, its objectives, and give the basic conclusions. At this point, it is of utmost importance that you make it clear and emphatic that the report is not a vehicle for personal selling. Your personal integrity should be sufficient, but it's good insurance to make a special point of it. Also, in the introduction it would be well to mention the functions of your unit and the responsibility and authority as you understand it. Go over how the personnel is organized, if this seems necessary.

Part II can be called "Results of Operations" or simply, "Constructive Work Completed." This is where you compare program goals with actual accomplishments. This covers new or modified methods and procedures, changes made and their results, new forms introduced, new equipment put into use during the year; unusual problems and situations met and solved. If you administer any work measurement programs, it might be well to point out any progress in lower unit costs, production, or change in volume of work handled; compare it with previous periods, point up any staff training completed, and development of supervisory talent, if any.

Graphic Record

One large company prepares a chart that shows graphically what has been done. It contains a column for each department in which projects were completed. Within each column there's a bar chart that shows one bar for the number of projects, one bar for man days spent by the planning department, and one that shows dollar savings. Then, to back up the chart they include a detailed work diary. This describes the projects, gives the date started, date finished, who did the work and the savings and intangible improvements obtained. Somewhere in this section mention can be made of talks you or your staff have given before civic or professional groups, details on meetings with other companies, or association work undertaken or completed.

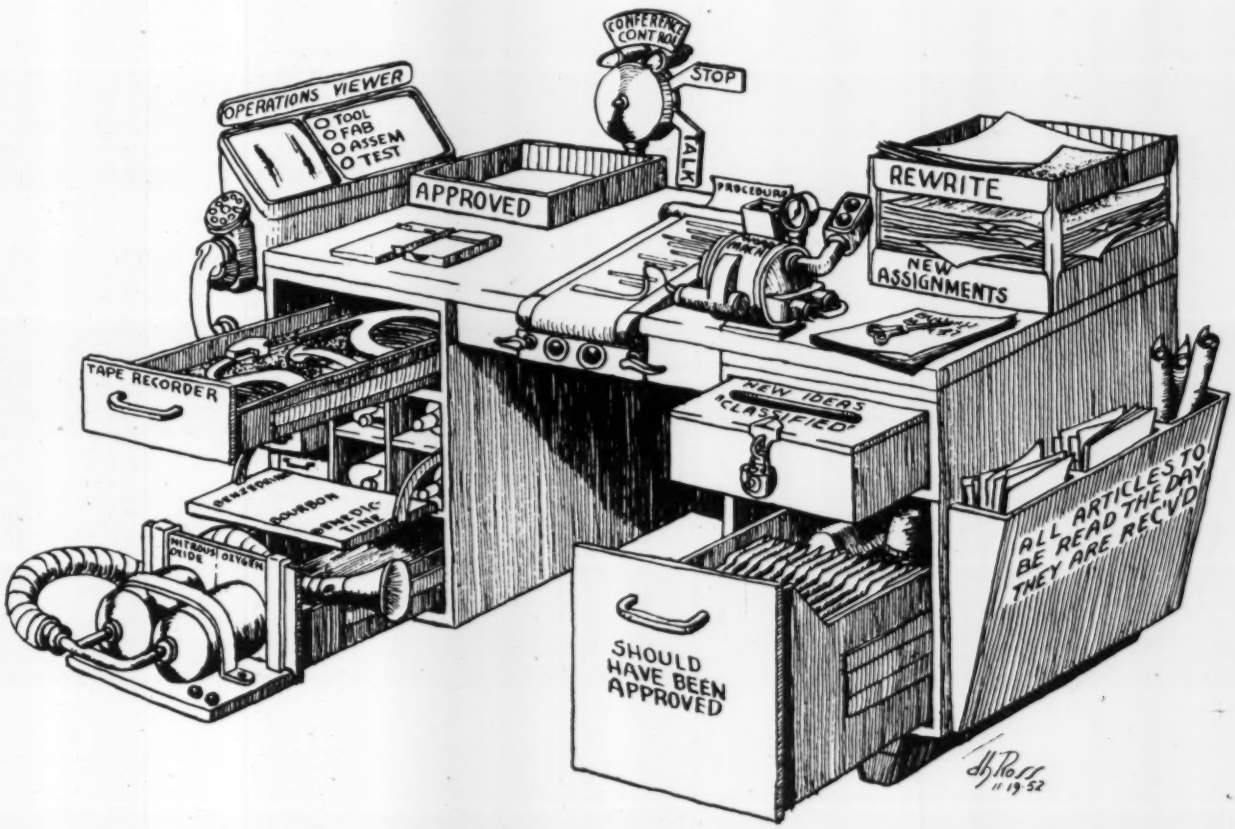
Part III might be called "Recommendations For 1953" or "Long-Range Plans." In this section you can deal with 1) definite projects, 2) general research (electronics, for example) and 3) pending projects. Give your plans for next year and emphasize how you intend to meet some of the problems current at this time. Here, too, is an excellent chance to prove that systems work has sufficient depth to offer management genuine help with their problems. You will, no doubt, wish to devote some space to improvements in your program; also, the important thought in this connection is to keep a good balance between strength of conviction and dilution for diplomacy. This does not mean to say that you should use subterfuge or trickery; not by any means. What I mean to say is that sometimes we become somewhat unreasonably extreme on ideas we want to carry out or on constructive criticism we wish to make.

A supplement to the report may include comments on areas outside your jurisdiction. This appears to be entirely ethical if you want to be "cause-minded." You can comment on important developments or individual occurences of which your top man should be aware. Logically, this part of the report should contain what the top administrator needs to know in making management decisions. That is, providing you keep within bounds of what is expected of you. Someone once said, "People who do not believe that furthering the general cause adds most to their individual progress are definitely not right people for any organization with forward-looking objectives."

Of course, a common objection to any report is that usually they are too long. Abraham Lincoln once answered that a man's legs should be long enough to reach from his waist to the ground. An "Annual Progress Report" should be long enough to explore the subject—even if you finally have to brief it for your top man. You will get tremendous diagnostic help just from writing it; that alone justifies the effort in making it. Brevity, however, has become a fetish, and information in depth is held to be unbecoming and unpopular. In the final analysis, though, there is still much to be said for more thorough reports, carefully prepared and clearly written.

To summarize: "Annual Progess Reports" provide a basis for altering plans and programs to meet changing circumstances. They indicate results secured from money and effort expended. They help your top management appraise the effectiveness of operations, and provide him with the facts necessary for his own reports. **s/p/a**

For the compleat Methods Analyst . . .



Procedures for Quality Control

by R. K. Zeller

". . . every activity within the company is concerned with the building of our products . . . every activity has a stake in quality control. The quality control organization must be a focal point where suggestions are received . . . plans formulated . . . action instituted."

OF ALL the peculiarities of human behavior, none is more confounding than the general aversion to procedures. The very sound of the word conjures up visions of involved, impractical instructions beribboned with red tape, which for sanity's sake, should not be taken too seriously. Yet the average person, within whom this imaginative picture is aroused, follows a procedure of one kind or another in nearly every conscious moment, and becomes, on occasion, exceedingly displeased, if the routine is upset.

While, for example, there would seem to be little connection between a procedure for inspecting nuts and bolts and the procedure adopted by the vast majority of people for getting to work on time each day, there is, in principle, not the slightest difference. A procedure, whether for the attainment of quality products or for punctual attendance, is a plan for efficiency.

Consciously or subconsciously, each of us has a plan for efficiency. We are aware that, to be on time, certain things have to be done within certain time limitations and in an organized fashion. So we establish a procedure for ourselves: set the alarm, get up when it goes off, shave, shower, dress, eat, take a parting glance at the clock, and leave . . . all within a specified time limit and in the most efficient order. If the procedure established is efficient, the plan is effectively implemented and there is no trouble. If, on the other hand, the correct procedure is not followed, the plan for efficiency remains in the category of "good intentions." It will never be completely realized. The same simplicity of logic applies to procedures for quality control. Here are integrated all of the elements of a plan for quality, establishing in the most efficient manner what has to be done, how, by whom and at what time. The accomplishment of the plan is dependent on the effectiveness of the procedures.

Trite as it may sound to those already engaged in

quality control, the first and most important factor to be considered in a plan for quality is cooperative effort. To varying degrees, every activity within the company is concerned with the building of our products, by which token every activity has a stake in quality control. The quality control organization must be a focal point where suggestions and ideas for quality are received, where plans are formulated, and where action is instituted. At the Ford Motor Company, the office of quality control is part of manufacturing staff which also includes the offices of manufacturing engineering, plant engineering, purchasing, production programming and control, and traffic. It is responsible for establishing quality control policy, and for introducing, developing and coordinating new methods and techniques. This is the office from which procedures for quality control emanate. In each of the sixteen operating divisions of the company are quality control line organizations, over which the office of quality control exercises functional supervision.

Since procedures are the instruments by which a plan is put into effect, it follows that procedures for quality have always existed in one form or another. Certainly, American industry has always had a plan for quality. Just as that plan has been revamped and refined to cope with the growing size and complexity of modern manufacturing, so has greater emphasis been placed on procedures. Along with the decentralization of the Ford Motor Company came a readjustment and realignment of quality control procedures. Three major functions were assigned to the quality control procedures section. These are: the improved development, preparation and publication of quality control procedures; the control of standard quality control forms; and the surveillance, to assure conformance, of issued quality control procedures and forms.

At the outset, it was apparent to the procedures section that decentralization of responsibility was likely to create some new procedural problems. How, for instance, were we to achieve uniformity of operation, and, at the same time, fully recognize the authority now vested in the operating divisions? Where was the common ground? Where was the dividing line?

There was nothing very glamorous in finding the solution to this problem. It entailed endless fact-finding interviews, the critical disection of existing practices, and the analysis and evaluation of all the information collected. But the effort was well invested. Despite the diversity of operation in a concern as large as the Ford Motor Company, our investigation revealed many practices which were common to all activities. And equally important, it isolated those conditions which were unique to each operation. Here, then, was a line of demarcation. Broadly speaking, the quality control procedures emanating from Staff should standardize all the common factors, stipulating, for example, the general inspection practices to be followed in all activities, designing forms to be commonly used, and establishing the connective links between divisions and staffs. Then, within the bounds of staff procedures, detailed responsibilities could be specified by the divisions. It was on this basis that procedures for quality control were developed.

Format

Procedures for quality control are made up of three basic elements—text, forms, and flow charts. The text is presented in five separate sections:

1. *Purpose*—This is a concise, to-the-point statement, rarely more than a paragraph, which describes the scope of the procedure.
2. *Organizational Components Affected*—This is a listing of the activities which are assigned responsibilities in the procedure, or which may be indirectly affected by it.
3. *Definitions*—This is the defining of certain basic terms, used throughout the procedure, to facilitate understanding and to avoid lengthy repetition.
4. *Summary*—This section is a relatively recent innovation consisting of a condensed narrative version of the procedure. It is held to a maximum length of one page, and is designed to give a quick but comprehensive picture of the entire procedure.
5. *Responsibilities*—This section is the meat of the procedure. Here are listed the specific things which must be accomplished for the effectiveness of the plan. Generally, these responsibilities are assigned to the affected activities under an action caption.

Forms

Just as important to the accomplishment of a plan as the fulfillment of responsibilities is the accurate dissemination of information. To be sure, an attempt to improve quality merely by sticking a tag on rejected material would meet certain failure. Nor, with inadequate paper work, could other activities affected by inspection results, complete a smooth transaction of business. When, for example, a shipment of material is inspected by the quality control organization, inspection results must be made available to such other activities as production control, accounting and purchasing. Production control must know the status of all material received or produced in order to maintain control of production, and to accomplish the regular responsibilities of material disposition.

MR. ZELLER prepared this article expressly for the QUARTERLY. He is supervisor of the procedures section of the quality control office, manufacturing staff, Ford Motor Co., Dearborn, Mich. He is a member of the Detroit Chapter of SPA.

The accounting activity is automatically affected since the results of inspection determine the accounting adjustments to be made; and purchasing is at all times interested in the supplier's quality performance. Hence, efficient forms design is an extremely important part of procedure development. Many of the forms which originate in quality control have, therefore, to be designed to accommodate the requirements of other activities.

The final element of the procedure is the flow chart, which is a graphic picture of forms flow responsibility in sequence. This provides management with an easy-to-use procedure.

Once the development work is completed, a preliminary draft of the procedure—text, forms and flow charts—is prepared and distributed to all central and manufacturing staff offices for review. Careful consideration is given to any suggested changes or modifications, and if required, the procedure is adjusted. The last step toward approval of the procedure is to obtain concurrence or comments from the various operating divisions. Again, preliminary drafts are distributed and all questions resolved. The final procedure is then distributed, from a central point in manufacturing staff, to all manufacturing procedure manual holders.

Despite the careful thought and diligent effort devoted to procedure development, it can never be assumed that final issuance of a procedure is the end of the road for the procedures section. On the contrary, issuance of a procedure is but an initial phase of the plan for quality. Achievement comes from action. This necessitates a system of control and follow up to insure compliance with procedure.

The Treatment Varies

Because of the diversity of functions in the operating divisions, the treatment accorded staff procedures varies to some degree. In some cases, where the broad delegation of responsibility is sufficient, the procedures are adopted as written. In other cases, supporting instructions are issued. And in still other instances, a divisional manual is maintained and procedures are rewritten to divisional requirements within the framework established by staff. Under such circumstances, follow up is extremely important.

Generally, the approach to the operating divisions is made through the quality control manager who occasionally assigns a member of his own staff to take part in the investigation. Checks are made to any extent required, right on the job, to determine the degree of compliance with procedure. In most cases, it is found that procedure is being properly followed. Where deviation is found, it is generally due to a very basic reason—lack of instruction or misinterpretation. Rarely are there cases of arbitrary non-compliance. Whatever the reason, the procedure is thoroughly reviewed and explained.

Through close follow up of this nature, all aspects of the practical operation of a procedure may be observed. Suggestions or criticisms which might never be made voluntarily through organizational channels are readily discussed during the course of an investigation. Such suggestions or criticisms are invaluable when considering improvement or refinement of the procedure. It is a certainty that without follow up, procedures could only be partially effective.

Forms Control

From the procedural point of view, forms control is another significant contribution to an efficient plan for quality. In any large concern, and particularly where a policy of decentralization has been established, there is always an initial tendency toward duplication. Indeed, without stringent control, it is far too simple a matter to produce myriads of different forms to accomplish a common purpose. In quality control, there are repeated instances of forms standardization which have resulted in reduced paper work and increased efficiency. Added progress is being made in this direction by virtue of a company-wide forms control program recently instituted by the finance staff.

As mentioned at the beginning of this article, it is somewhat difficult to understand the skepticism with which procedures are viewed. Just as perplexing is the reluctance on the part of a great many people to accord procedures any of the glory for increased efficiency. He is a rare systems analyst who has not been told, at one time or another, "This job would have been done anyway—with or without a procedure."

Is it enough then to claim that procedures are essential to the efficient accomplishment of a plan? Will those who doubt their value ever be converted by a recitation of the worn-out phrases that procedures "dovetail responsibilities" or that they insure "complete coordination" or induce "constructive thinking"? If not, how can the value of procedures be demonstrated?

There is one good answer to that—by specific example. Take a procedure and specifically pinpoint the improvements it brought about. For example, in developing a quality control procedure to cover the inspection and disposition of shipments of production and service parts, it was found that quality control people were performing, as a matter of habit, many functions which were not directly related to inspection. They were, for instance, determining the disposition of rejected material, requesting shippers for return of material, requesting and following work orders for repair, etc. Consequently, the quality job was being neglected to some degree. Therefore, in preparing the procedure, it was clearly set forth that the function of quality control people was to inspect

shipments of material and determine if the material was or was not acceptable. All action and paper work incidental to material disposition, subsequent to inspection, was specified as a responsibility of production control. The production control office supported this switch in responsibility. The important thing from a quality standpoint, is that more time is now devoted to the job of improving quality. Similar instances of specific value can be claimed for every procedure.

In addition, an effective forms control program is usually replete with evidence of increased efficiency. At one time in quality control, eight or nine different tags, varying in color and size, were used to identify OK material. Standardization resulted in one OK tag, one "Hold" tag and one "Reject" tag. The colors green, amber and red were used. In another instance, more than twenty varieties of similarly designed forms were consolidated into two forms.

Procedures for quality control have also been of particular benefit in the introduction of new techniques. As is generally known, the Ford Motor Company took a pioneering interest, in the automotive field, in the introduction of statistical techniques of quality control. This was part of a plan for improved quality. It envisaged not only the application of these new methods to our own operations, but also to those of our suppliers. It went even further than this, visualizing the day when formal quality level agreements could be entered into between the company and its suppliers. The elements of this plan—what had to be done to accomplish it—presented no problem. Nor was there any mystery surrounding its potential advantages. First, both the Ford Motor Company and its suppliers would have to successfully apply statistical quality control techniques. Once this had been done and quality was effectively controlled, an agreement could be reached. Better consumer-supplier relations, improved quality and reduced cost would result. But the plan could not go into effect until all the details had been worked out and specified in a procedure. Here again was adequate proof that procedure linked thought with action.

This procedure for quality level certification agreements, when finally developed, consisted of five principal elements. First, responsibilities were established for correlating inspection practices, so that both the Ford Motor Company and its suppliers would evaluate quality on the same basis. Then there followed responsibilities for a pre-certification period during which material was inspected in accordance with correlated inspection practice. Accurate historical records of inspection results were maintained by which to gauge performance. The third element of the procedure established responsibilities for the preparation of quality level certification, at which stage economically acceptable quality levels were established. In the fourth phase, all the details for originating an agreement were specified, and finally came responsibilities for its practical administration. The issuance of the procedure officially initiated the quality level certification agreement program.

The certification agreement has proven to be equally advantageous to both the Ford Motor Company and its suppliers. It insures, in the first place, that quality evaluation is based upon common measurement. It establishes a practical quality level—one acceptable to the buyer and attainable by the supplier. It is effective in reducing costs and in improving quality and it promotes better understanding between consumer and supplier. While all of these beneficial results are not, and cannot be attributed to the procedure alone, would it not be interesting to speculate what could have been accomplished without it?

Indeed, if one has an ambitious plan, is it not mandatory that all the details be organized, that the course be charted, and that the responsibilities for its accomplishment be assigned?

It is a certainty that where a *plan for quality* is involved, nothing can be left to chance. **s/p/a**

A 1952 Management Conference Paper

Design and Control

by Frank M. Knox

PAPER-WORK is the office production problem. The raw material is blank paper. Work-in-process is the clerical operation on office forms. The finished product is the completed record. A well-known authority on forms control tells us how to keep general administrative expenses to a minimum.

IN A discussion of business forms it is impossible to separate such forms from the general picture of paper-work, because forms *are* paper-work—they are nothing but paper-work. Everything that happens in the office happens to or by means of a piece of paper. Most of these pieces of paper are forms. The cost of paper-work is eating into profits, as companies everywhere are finding out. The increase of general administrative expense has become so severe, particularly in the last decade, that it is actually eating into the margin of profit of the company. Obviously something has to be done about it and that something has to be done on a management basis. The question then becomes what can management do in order to cut this paper-work expense?

The first thing to do is to realize that paper-work is a production problem. Everyone is acquainted only too well with the production problem in the factory. Over the last half century management engineering, starting with Frederick W. Taylor and continuing down through that school, has dealt with the production problem in the factory, with the result that we have made tremendous strides in solving the factory production problem. Paper-work spells production in the office corresponding to the production problem in the factory.

In the factory you deal with three basic factors—raw materials, work-in-process, and finished goods. You have parallel factors in the office; the raw material is blank paper, work-in-process is the clerical operation on office forms, and your finished product in the office is the completed records—those records that fill up all those multitudinous units of filing space.

Now it's a very common thing in the factory, or in the factory end of the business, to have a production control department. In fact, there isn't a manufacturing concern, whether they formally call it that or not, that doesn't

# of Business Forms

have a production control department. Why then, should there not be a production control department in the office? Actually there is, in some offices. It goes under the name of the systems and procedures department or some such title. Your systems and procedures department in the office, is the exact parallel of the production control office in the factory. You are doing the same thing to the parallel operation, which is a production operation.

Unfortunately, many companies do not have a systems and procedures department, in fact, I would say actually a very few do; when you take the thousands on thousands of manufacturing companies and insurance and other types of service companies, as banks, pitifully few of them have a formal, recognized, production control, or if you please, systems and procedures department in the office. They are pecking away at it. They are thinking seriously of it, they can't help it. All they have to do is look at the P & L Statement to think seriously of it.

What are those people doing, who do not have a systems and procedures department? Unfortunately, many of them don't do much of anything. Those that do have such a department will give you an answer something like this: "Well, the controller looks at every requisition for forms as it goes across his desk." Many of you undoubtedly remember Queequeg, the Indian, in Herman Melville's *Moby Dick*. Queequeg couldn't read or write, but he had learned to count to fifty, quite an accomplishment. In one memorable scene, he has the great Bible in his lap, and as he sits there and with a far away look in his eyes, he counts the pages. He counts up to fifty and gives a long, low whistle, turns them over and counts another fifty and gives another long, low whistle. Well, I can just imagine the controller, like Queequeg, giving a long low whistle every so often, as he looks at these requisitions coming across his desk. He can't read or write, but he can count up to fifty and actually in many cases that's just about all that happens to the office forms. He looks at them and says, "Oh my,"—so what?

Another thing that is often given as the thing that is being done is, "Our procedures man takes care of forms." Well, I wonder if he does. Procedures men in my experience, are just about the busiest men I have ever seen. They can't possibly cover the field in their own company, there is just too much of it. They are so busy putting out individual fires, that they never have time to install a fire control program and yet they are supposed to control forms along with their other work. Intentions are very good, I have no doubt, but I do doubt very much whether the real genuine forms control takes place many times.

Another factor that bears upon control is the type of forms that you run into in an organization. That bears some looking into. What are forms actually? Forms, by and large, are little pieces of paper. By little, I mean of small usage. I want to give you some statistics on that.

Let's start out with a very small company, a company with about 900 employees. That company has 346 forms. Seventy-six per cent of those forms are used in quantities of less than 1,000 per year. Now will you tell me, what procedures man is going to spend his time following forms that are used in quantities of less than 1,000 in a year? With very rare exceptions, he isn't going to spend any time on them, because he hasn't got the time. He is too busy working with the big usage paper, the key paper. He never gets to the small paper. Ninety-one per cent of those forms are used in quantities of less than 5,000 a year. In other words, there is very little paper, comparatively very few forms used in really large quantities.

Let's look at a manufacturing company with 3,000 employees. That company has 994 forms, exclusive of the office duplicated forms. Nobody knew how many of them there were and they were afraid to count them. Sixty-five per cent of those 994 forms were used in less than 2,500 per year and 83 per cent were used in quantities of less than 10,000 a year each. Now in that company there were 43 forms, that's 4 per cent of the total, that were really important to the company—important, that is, from the standpoint of management thinking. They included the invoice, the factory work order, the warehouse order, the shipping order, the purchase order, bill of lading, re-

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ceiving report, every carbon interleaved form in the company and every tabulating form in the company. Not a great big company, you understand, about 3,000 employees, but there is 4 per cent of the forms, which by and large, could be expected to come within the purview of the systems and procedures department. They didn't actually have a formal department, but they did have people working on systems. They had two people assigned to that work. So far as I know, they never got beyond those 43 forms and believe me, if they do a good job in organizing the work contingent upon those 43 forms they will have done a good job. They will not have instituted forms control, they didn't have time.

Let's take a large national bank with branches in several cities. They had 2,500 forms. Forty per cent were used in quantities of less than 1,000 a year and only 14 per cent were used in quantities of over 10,000 per year.

What I am trying to say is this. The individual forms, in the average company, are peanuts. It's like the sand under your feet, you never notice it until it starts to burn your feet and the average systems and procedures man will not have time to do a good job on systems and procedures and also control of forms.

What are you going to do if you *do* control forms? Well, in the first place, you must organize your problem. Take an inventory. If you try to solve your office problems without taking an inventory, I am afraid that you won't get very far; all you will do is to put out the little fires, sometimes even big fires, but you will not be laying a foundation under your control program.

Design of the Form

How do you take an inventory? That brings us to design, but let's pause a moment to mention authorship, which is actually the starting point. Someone takes a blank piece of paper and starts to write words and make lines on it. He is authoring a form; he may never be paid a royalty on the finished product but he is authoring a form. Those words and those lines put on that piece of paper, perhaps with no arranging at all, constitute the design of the form. The design may be the worst or the best design in the world or anywhere in between; the authorship may be good or it may be bad. The design is different from the authorship. Figure 1 is a pie chart that breaks down the factors of the paper-work control problem. Over slightly to the left is the factor of design. Design of forms makes for clerical efficiency.

The next piece of pie in this chart takes in those factors which constitute the physical handling of the form. You write a specification for your printer, telling him what you want, what size, what paper, how many holes to punch, margins, type color of ink, one or two sides, head-to-head or head-to-foot. Those physical specifications should accompany every form. You would not think of sending a job to your factory for production without your permanent manufacturing information, or whatever you call it in your company. Then why send a form to a printer without sending the same kind of instructions. You shouldn't do it.

The next factor is purchase. You have to purchase the form; even if you have it reproduced on your own office duplicating machine, or in your privately owned printing plant, you are still going through a function that corresponds to purchase.

Then you have the manufacture of the form. Take a blank piece of paper and you convert it into a finished product on certain converting equipment by definite converting methods peculiar to the printing industry.

Troublesome Factors

Storage and distribution come next and are a very down to earth, but sometimes a very troublesome factor. You have to store the forms somewhere and you have to get them to the people who want to use them. Then you go into the very big factor in the problem of forms, the one that encompasses your entire systems and procedures problem—the use of forms. It is by far the predominant part of the entire problem, but it cannot divorce itself from those other factors. Those other factors have a very definite and a very positive relationship to the use of forms and unless they are taken care of properly, prior to putting the form into use, you will suffer in the use of the form.

Finally you have the factor of records disposal or what to do with the form after you have used it and the record is completed. Those eight factors comprise your paperwork problem. If you want control over paper-work, you must not leave out any one of those factors; if you do, your control will be deficient by just exactly that much and you may have an effect entirely disproportionate to its apparent importance but negatively affecting the use of forms which is the focal point of all.

Turning again to the pie chart, you will notice that we have three areas of control put around the chart. First we have forms control, which encompasses the design and physical factors, second, the systems and procedures control, and third, the records control. Forms control should include design as well as the physical factors, because the authors of forms have their own special tasks. They may be accountants, or factory managers, or shipping clerks—they may be this, that, or the other; they are not forms designers alone, and the scientific arrangement of data on a form is something to be learned. The authors do not have the time and should not be expected to have the time to master the science of design. You should have someone in a service unit on a staff basis to do that for you. Understand, the designer does not take over the authorship—that remains with the using depart-

ment, but it's a coordinated marriage, if you please, between working people. Inclusion of the physical factors in this area of controls is obvious enough; it requires no further information.

Second, the systems and procedures control takes in the use of forms, including also the authorship. What appears on the form obviously is related to the use of the form and could not be included successfully anywhere except in the systems and procedures area.

We raised the question of *how* we take the inventory. It is a real down to earth task, a pick and shovel job. Start with your raw material; you get together samples of every piece of paper in the entire organization. You will not get them from the purchasing department, you will not get them from the stationery stockroom; you will find probably that 50 per cent of the forms in your organization have never seen either the purchasing department or the stockroom. What are they? They have been produced on office duplicating machines, all over the place.

The most difficult area of control in paper-work is the office duplicating machine because it is the most convenient method possible of getting a form quickly. The office girl can run off the form on a hectograph or a mimeograph, or a small offset press; but she probably is not an expert with those devices and the work is not under control and is usually rather bad. Thus you will find that 50 per cent or even more of your total number of forms will probably fall into an unsatisfactory category.

You must get every kind of piece of paper used in the organization. You send out to the department heads and describe very carefully what you want. Don't ask for a

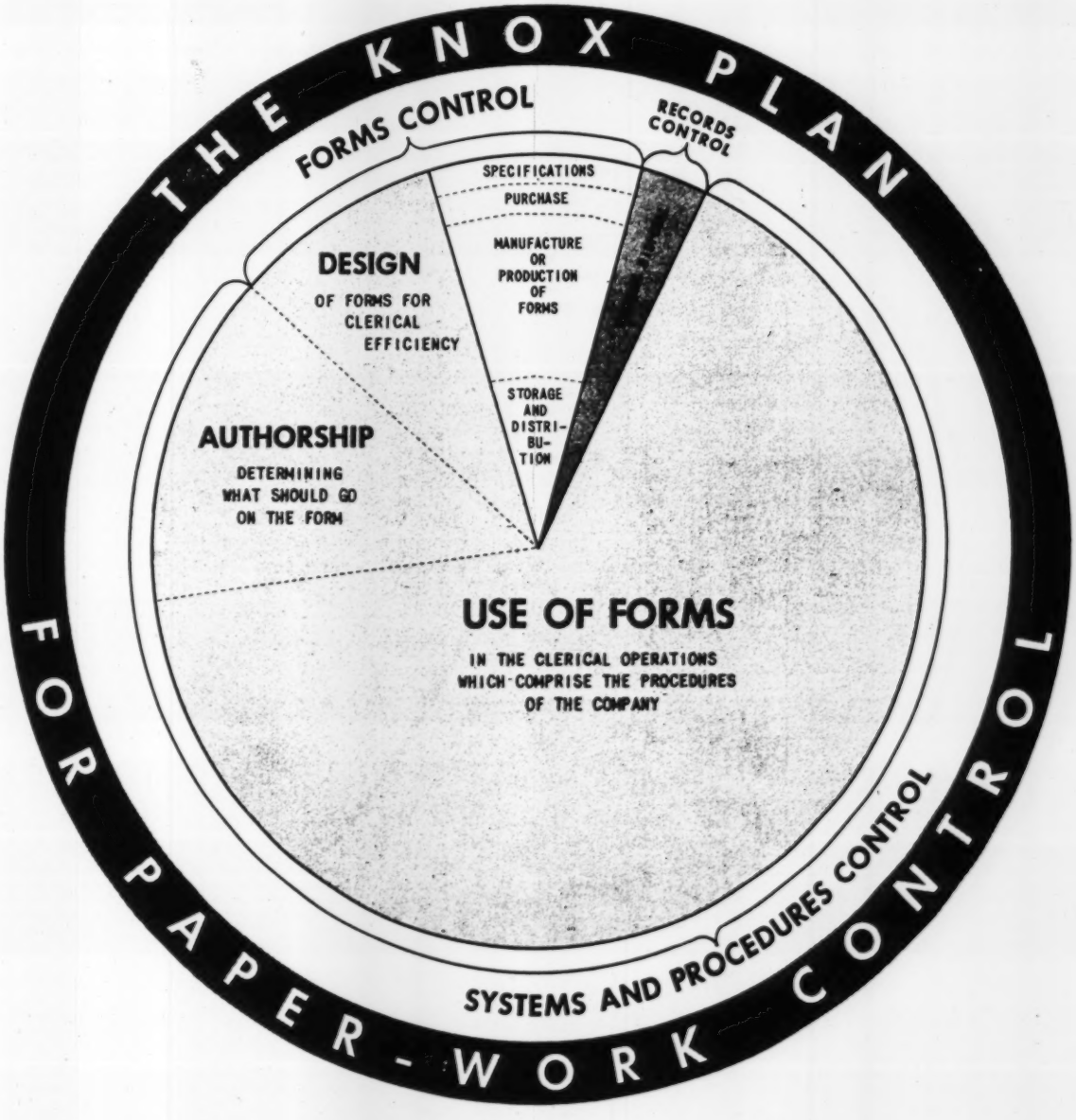

Figure 1

lot of information, for you don't need it at that point and you wont get it anyway from them. When those forms come in, what do you do with them? You organize them into some type of file or index that will permit you to get answers to several questions. You want to know how many forms there are, who uses them, how many there are of each, and particularly, how many duplicate or overlap other forms. I saw an instance not long ago in a rather large company that had over 300 forms keeping track of time. The officers were, to say the least, startled. How can you have 300 forms for keeping track of time? Ninety of them were clock cards, every one different. I bring that instance up merely to illustrate that in this inventory you must find out the important fact of what forms duplicate each other, where they are, who uses them, and then ultimately how they got there.

Functional Index

In order to organize the forms, we have evolved the only successful method that we know of, and call it the Functional Index. It takes every form and breaks it down by operation, by subject, and by function. You can sort forms by titles, but titles will be misleading, in fact most of your office duplicated forms won't have a title. You can try to sort them by what some people call subject, that is, for example, put all bills of lading together, and all checks together. Incidentally, we ran into a hotel situation one time, in which they had put all checks together, and we found out that they had dining room checks, coat room checks, and bank checks together. Obviously the word "checks" became a little ridiculous, for actually a dining room check is nothing but an invoice, yet it never occurred to them to put dinning room checks with the invoices because of the traditional usage of words. Many of the traditional words cease to have any meaning when you boil the matter down. Try to define the term "Bill of Lading"; a bill of lading is nothing but a receipt. Your common carrier acknowledges the receipt of the goods which he is going to ship. Why go to the trouble of calling the paper a bill of lading when it is a common receipt? These instances are illustrative of the difficulties you may run into if you sort forms by subjects.

Take a couple of examples of correct filing; a bank check is filed under Cash; the operation is "payment of," and the function is "to order." These are just what apply when you sign a check. On your bill of lading, receipt of materials and supplies is acknowledged; that is what the common carrier does. We must think of forms in that way, and if you can organize your forms in that kind of an index, you will answer those questions. That is the way you take an inventory of your raw material.

Next is the inventory of the work-in-process. How do you take that. There we get into the matter of flow charting. The thing I point out here is that you put down in detail what you are after and the best way to attain it. This is nothing but an inventory of what is taking place and the best way to reach the end, shown in the simplest possible chart. Such a chart should show nothing but What, When, and Where. Remember that we are taking an inventory of what happens, and if you find out everything that happens to every piece of paper you will of necessity inventory the clerical operations.

Later on, when you get into work simplification, you will want to explore that *who* factor much further, also work loads and that sort of thing—but for this stage of the problem you are not interested in that. Particularly this, and it is very important, you are not interested in the *how*, at this stage of the game. You don't care whether it's a machine operation, or a hand operation, or whether they hang by their heels when they do it, or whether they sit in a chair. You don't care at this stage, it won't matter if you make a note for later reference, but all you're trying to find out here is *what* happens, *where* it happens and *when* it happens. The *why* is a question that you will ask yourselves all the time.

Why?

Let's ask a *why* question. Why go into this type of a thing? For this reason. When you make a chart like this, that shows the *what*, the *when* and the *where* and take it in to the controller or to the department head, or to the procedures committee, or whoever the powers are that will give you the answers to these things, they can read it. They can sit down and in one minute they can read it. They don't have to go to school to learn how and neither will they end with an inferiority complex because they can't read it and wonder if their education has been deficient. You don't want to get into that situation. They can say—why does this happen over in the tool and die crib? Shouldn't that be happening over here in the other place, or why do these people do these two things? Why can't one person do it? You will find they will ask those questions and ask them very quickly and you can get the answers on *what* should be happening, *where* it should be happening and *when* it should be happening. When you have those three answers, you make your chart on a corrected basis, to represent those three things.

Then you can go into work simplification and you can go just as far as you want. Call in the experts on the various systems and machine applications, there are plenty of them. You can go into workload studies, you can go into time and motion studies, you can go just as far as you want, but you will be studying something, the validity of which has been proven and not wasting your time on something that should not have been there in the first place.

(*Continued on Page 29*)

A Key to Simplified Filing

by F. deP. Townsend

TO ESTABLISH an outline I am going to divide a filing plan into two different groups. The first one will be called mechanical and we will try to cover some of the mechanical features that fall in that category. The first thing one has to do in setting up any kind of a plan is to prepare his papers to be handled quickly, efficiently, avoid duplication and so forth. Classification comes first. You can't file, you can't find, you cannot handle effectively papers that are not properly classified. The filing troubles that exist today are often caused by improper or no classification.

With classification comes sorting. You cannot sort intelligently unless you know into what classification papers fall. After you have started your plan and set up your classification and sorting, you have to decide what types of filing you are going to use. These fall generally into three categories, alphabetical, which covers primarily corporate and individual names, geographic and subject. The hardest of the three to set up and maintain is subject filing. It's something that you can spend months on and to set up a subject file of any great area, takes months to do. There is not enough planning put into it, in nine cases out of ten. There can be no pattern set for it ahead of time, except certain fundamental ideas. You can have a subject file starting out with classification by main headings, which could be departmentally, could be product, could be most anything and then broken down behind those. The subject file must of necessity, in the great majority of cases, carry a relative or cross index. Your alphabetic filing can be combined of course, with other kinds, depending upon your program. In other words, you can have a combination alphabetic and numeric file, which brings up the fact that one of your types is numeric and the third one is chronologic. There are others, but that covers roughly ninety per cent of the applications that are required today, either individual or in combination.

After you have decided what type of system you are going to use, comes the findability factors.

After that it quite naturally follows, that the use and control of the files has got to be very carefully planned out. I don't care whether it's a four drawer file, or a whole battery, intelligent controls should be established, and adhered to. Then you will have something that's workable, simple, that's inexpensive.

Among the considerations involved are follow-up methods and there are myriads of them. They should be patterned around the company's policies and methods. It shouldn't be arbitrary. You have charge-out methods and again, what you are doing, how you do it, how you use the files and so forth, should be taken into consideration before the final method is decided upon. Handling a request will vary, based upon the size of your organization. In some cases requests will be personal. People will appear at the files and ask for papers. In other cases, long distances may intervene, and requests may be by telephone. You might have set up a messenger system of some sort. There are times when business requires that material be fastened, for reasons of their own. Often there is no necessity for it, but they want it, so a decision must be made as to whether you are, or you aren't going to fasten and whether you are willing to pay the penalty in labor.

Now keep in mind please, that about ninety per cent of the cost of maintaining your records, at points of storage—whether they be temporary, semi-temporary, or transferred permanently—is labor. How intelligently you put that labor to work, will depend upon whether your costs are within reason or whether they are not. We often overlook this. If you will consider, each piece of paper that you handle to be covered with a thin sheet of gold leaf and then consider that sheet of gold leaf as your profit, every time you handle that sheet you take a little off. The more you handle it, the less your profit and vice versa. Your filing, your finding, your maintaining of records, has a great deal to do with the profit of your office, which in turn affects the profit of the business.

Office Orphan?

We are too prone, in this day and age, although there is more recognition than there has been in the past, to consider the filing department as the orphan of the office. When the filing system has need of a new file clerk, they hire some poor little girl and put her to work with no manuals that are intelligent, and no indoctrination program. And they expect her to handle the most valuable thing the company has—its records—and have them at her fingertips whenever they want them.

Nothing surprises me more, as I get around the country, than the fact that more papers aren't lost. Maybe some of you have experienced the high blood pressure raving of some executive, trying to find an important company document that can't be found. You know the

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turmoil that occurs until it is uncovered on somebody's desk. Many times it is never found.

There is no simple filing system or plan. It takes a lot of thinking, a great deal of analysis. It takes a thorough understanding, if you will, of your own business, to set up an intelligent set of files. I know of companies who have spent as much as a year, sixteen and eighteen months, in putting a plan into operation. Their files were not disrupted while they were doing it, they still had access to their papers under their old systems, but it took them eighteen months before they had the thing fully under control and the type of operation that it should have been. The resulting economies are unbelievable.

One case, where nothing but the sales offices in the field were done and every office was doing work in the same manner, the savings that resulted from a study of their requirements and setting up an overall plan resulted in a saving of better than a quarter of a million dollars.

Central Pool Results

The by-products that come from a filing plan that's intelligent, are sometimes almost unbelievable. I know of one instance, where the net result was a centralized secretarial pool. Every executive in the outfit had a secretary. An analysis indicated that about fifty per cent of the time of each secretary was taken in filing the papers of her boss, in his department. When they were grouped together, as they could be in this case, they lopped off fifty per cent of all the secretaries involved, which far more covered costs involved in setting up that plan. It was an overall plan, starting with the birth of the record and following it straight through to its destruction.

There are extremely few people in this country today that have an overall understanding of what is involved in record keeping. It applies not only to the filing cabinets but also with binders, shelf filing, and with any container that holds a record. A study of the sales department alone in one company revealed that they had 637 forms in the sales department alone. When they got through, they eliminated over 300 as a result of setting up a filing plan. Sure, it took seven months to do it, but you can imagine the saving alone in printing, that was involved in that. I stress the plan part of it because if you make haste slowly and you sit down and think the thing out ahead of time, you know where you are going and then you are going to end up with something good. If you jump in and say "Oh well, we need some more guides and folders and we can change this, or do that," that's not going to solve anything for you at any time, under any conditions. You must have control over the situation at all times. Now you probably know all this, but it illustrates a point.

Now, we've discussed the mechanical features and remember, that all of these should be in the hands of one person, not a committee. If you want to bust up a plan, if you don't want any results, appoint a committee.

The second category, as far as a filing plan is concerned, is functional, as opposed to mechanical. By that we mean, among other things, the control of the paper movement. You may say a filing department has nothing to do with the control of paper movement. It does under certain circumstances. In many cases, certain papers should go to the file directly from the mail table, before they are ever distributed and that is just one of many examples, which brings up mail assignment and distribution. The filing department, as such, is vitally interested in that and should be in a position where they can sit down with other people involved and intelligently work it out.

In larger companies, you will have a sectional problem of mail sorting and routing. One receiving point, receiving and outgoing, in many cases is not enough. It has to be broken down sectionally. It may be necessary under certain circumstances, to maintain a mail control clearance. After those things have been decided and you have worked out your plans, again as to how they are going to operate, then you have got to decide how and when papers are released to file.

Who's Responsible?

You have the creation and routing of internal forms, as opposed to forms coming in from the outside. They are going to end up in some sort of container. Somebody's got to be responsible for them. Your internal forms are quite frequently very poorly designed, because no one with the knowledge of filing is ever consulted before they are drawn. The name or number or whatever it is you are going to file them by, usually is buried way down at the bottom, or half way down or something, which takes more time to discover, increases the chance of error and shouldn't be where it is in the first place. Findability is part of form design and your filing people should always have something to say about a new form that's being created, because they are very vitally concerned with it.

Now of course, departments have the right to have certain records in which they work constantly. They have still got to be controlled, in one form or another. You can control them by saying to the department head, "O.K. you set them up any way you want," or you can have centralized control and that doesn't mean centralized physically as bringing together in one big area, but controlling the method of handling those papers.

One large company I know of offers such an example. They analyzed their records on the basis of setting up a plan and discovered they had some 600 filing categories scattered among their departments, all over the lot. By

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Accounting Short-cuts

by V. H. Kane

DURING recent years there has been a decided shift in emphasis from the concept of historical accounting to that of forecasting or looking ahead. Accounting is expected to operate as a tool or service of management. As one executive expressed it, "What we need is accounts for operators instead of accounts for accountants."

We, in the systems field, must adopt a management point of view before we can expect to help solve management's accounting problems. Before attempting to improve our procedures for accumulating and reporting information, we should study most carefully the requirements of management. It is not enough for us to design procedures that specifically fulfill management's requests for information. The operations of the company and the problems of management should first receive our careful consideration. Then, the problems should be reviewed with management to determine what information is needed, when it is needed and how it is to be used. With a proper understanding of the needs, it is often possible to simplify the clerical work through a reduction in the volume of the requested information and the degree of exactness required.

Many employees believe that all clerical work must be as exact as is humanly possible. When we stop to realize that many of our answers are based on estimates and opinions, it is clear that accounting is not an exact science. There is little merit in estimating the provision for depreciation at 10 per cent a year and then computing and distributing the depreciation to the nearest cent. Many of our cost allocations are based on approximations and should not be given the refinement of too much exactness in application. We, in the systems field, should be the first to recognize that there is an allowable tolerance in accounting and clerical work. Companies should not be asked to buy perfection and we must help to develop quality standards for clerical work that are consistent with the company's requirements and at minimum cost.

The accounting records should contain only that information which we expect will be needed. Occasionally the management asks for information that is not readily available from the records and the information must be built up for the occasion. The accounting supervisor may feel some embarrassment for not having the information readily available and may install a permanent record containing information that may seldom or never again be used. Some accounting supervisors often go even further than this and try to anticipate possible requests for information. This obviously increases the cost of accounting and slows down the reporting of useful information. The management should understand that it is too costly and cumbersome to accumulate all possible information and should expect to have to wait a reasonable time for special information. Accounting supervisors should recognize that it is not a sign of efficiency, but probably of waste, if they have information available that is seldom used.

In companies of medium or larger size, a substantial clerical saving can often be realized through the elimination of cents from the accounting records. Cents elimination from accounting records is, however, not generally followed. I am not referring to the elimination of cents from the financial and operating reports as this is now generally adopted to make the reports more readable.

The purpose of eliminating cents from the accounting records is to save time. The saving of time results from writing of fewer numbers in the accounting records. In writing fewer numbers the possibility of error is reduced. The speed and accuracy of adding, subtracting, multiply-

ing and dividing smaller numbers is increased. Reports can be prepared more quickly from records which contain only dollars.

When can we eliminate cents? It is apparent that cents must be retained in those records which record the receivables from and payables to other parties. The records for payrolls, accounts receivable, accounts payable and cash must contain cents. However, the cents may be dropped when we are recording cost distribution, stores purchases and issues, sales analysis, deferred charges, plant and equipment and provision for depreciation. Cents may be eliminated from all accounts except those with outsiders or may be eliminated from only a number of the remaining accounts. The decision should be based on individual circumstances. If cents are to be eliminated, it should be done the first time the numbers are written for internal use so that the greatest savings may be realized.

Some Examples

Let us consider a few applications of cents elimination in our accounting records:

Stores Records—Charges and credits to the stores accounts can be made in dollars only. However, the unit prices of stores items of small value per item would continue to be priced to the nearest cent or perhaps even hundredth of a cent. Issues should be priced at the unit prices and extended to the nearest dollar. The time saved in pricing, posting and summarizing a large number of stores requisitions should be substantial.

Voucher Register—If a columnar voucher register is used, cents can be omitted from all columns except the total column. The difference between the total column and the total of the detail columns would be posted to the cents elimination account. Considerable time should be saved in entering, adding and posting the amounts in dollars only. The advantages of cents elimination should apply to other methods of voucher distribution.

Cost Records—All charges and credits to the accounts could be in even dollars. All transfers and distributions of costs could also be in even dollars. The accounting work would be reduced and report preparation facilitated.

When is it most profitable to eliminate cents?

(1) When there is a large volume of internal accounting work.

(2) When many of the amounts used in the internal accounting are originated within the company. Under these circumstances the amounts may be originated in dollars only and we do not have the trouble of eliminating cents.

(3) When the internal accounting is not a by-product of the accounting with outsiders. This can be best illustrated by an example in which it is not profitable to eliminate cents. If the payroll distribution is determined on tabulating equipment from punched cards which are also used for preparing the payroll to employees, information on the punched cards must be in dollars and cents to arrive at the proper amounts due the employees. Under these circumstances it would not be profitable to eliminate cents before the total of the payroll distribution had been determined.

Cost distribution is a part of accounting which permits wide variation in method and application. Our object is to provide a satisfactory distribution of cost in the least time and effort. The distribution of the gross payroll may involve many detailed calculations of hours at specific rates. In addition, employers' payroll taxes, industrial insurance and other payroll burden items may be computed separately and in great detail. This requires much time and effort. A review of the payroll may disclose that average rates of pay and payroll burden can be used. Payroll charges may be controllable by hours and, if average rates are satisfactory, the distribution can be greatly simplified without reducing the value of the information.

Stores inventory accounts are often charged with small amounts of freight. This requires allocation of the freight to the related items, posting to the stores accounts, and including the freight in the average unit prices. Consideration should be given to expensing small freight payments of, say, five or ten dollars. Stores items which are issued frequently and which have small total value require a large amount of clerical work in relation to their total cost. Satisfactory costs may often be obtained with less clerical effort by expensing these items at the time of receipt. Unit costs of stores items may be carried out too far and the work increased unnecessarily. The unit cost of the item and the average quantity issued at a time should be considered when determining how far to extend unit prices.

Eases Presentation

Items of expense which are to be distributed to the same departments on the same basis may be combined to facilitate the distribution and statement presentation. This would include such items as general plant salaries and sundry supplies which might be charged to a factory overhead account and then distributed in total to the various operating departments. This appears obvious, but I recently observed a case where the items of expense were charged to the factory overhead account and then each classification of expense was transferred to the operating department accounts and shown by natural classification on the reports for these departments. In addition to the wasted effort in transferring and reporting the charges in detail, the reports did not show the total factory overhead in one place and were deficient in that respect.

In many companies, a large volume of checking can be reduced or eliminated. If the data were prepared by company employees the work should, under most circumstances, be checked or test checked by other company employees before being submitted to outsiders. If the data were typed, the check should be made of the typed copy to verify the accuracy of the final product. If the data were prepared by an outsider, one check or perhaps even a test check by company employees should be sufficient verification. Data prepared for internal accounting purposes should be subject to less verification than that sent to outsiders. Where possible, the checking should be done by a different method than used for the original calculation. An over-all check is usually better and much faster than a detailed check. As an example of an over-all check, the hours of payroll may be accumulated by rates and then extended to verify the total payroll.

Some companies have instituted test checks as a means of reducing clerical work. The transactions subject to test check are usually of large volume and of small individual amount. The companies' reason is that the cost of finding minor errors far exceeds the value of the checking and, therefore, the checking is limited to samples; for example, the test checking of invoices from vendors with amounts of, say, less than $25.

An office which originates data may spend too much time double-checking information that will be automatically verified by the receiving office; or, the receiving office, because it does not trust the originating office, may verify information that is supposed to be fully verified before being released.

When an extensive amount of checking is done, it is often desirable to have a record kept for a representative period of the number of transactions, the number of transactions checked and the number, kind and amount of mistakes which are found. From such a record, we may get a clue as to whether there is too much or not enough checking. The extensive amount of checking in many companies reflects the failure to correct the conditions giving rise to the errors.

Too Much Emphasis

There are many instances where there is too much emphasis on form and appearance. This is usually a result of pride of workmanship, but can result in delay in issuing information and an increase in clerical cost. Reports may be typed that could have been submitted in the original handwritten form. The grade of paper or method of reproduction may be better than required. A good procedure to follow is first to determine the most economical method of performing the clerical service; then it may or may not be necessary to upgrade the method to obtain satisfactory results. Appreciation of this by executives would he very helpful in finding a practical solution to this sometimes annoying problem.

Here are some examples in which quality standards are applied.

Stores Problem—This company is engaged in manufacturing and has a large volume of stores issues. The issues were priced in many instances to five decimal places and were totaled and extended to the nearest cent. Due to the pressure of the large volume of work, there was no regular recheck of the work and several large errors were found as a result of investigating unexplained variations in the departmental costs. New procedures were installed which provided that the stores issues be priced to only two decimal places and extended and footed to the nearest dollar. The procedures included a review of the work and some over-all checks which have largely reduced the possibility of significant errors; the clerical work was reduced.

Another Problem

Payroll and Cost Problem—This company is engaged in stevedoring work and has an extensive payroll and cost distribution problem. A weekly payroll summary was prepared for each gang and each job. The payroll summaries were extended and verified in detail. The hours were segregated by cost items and the gross payroll, as well as each item of payroll burden such as payroll taxes, vacations, and insurance was computed separately for each cost item. The onshore payroll and offshore payroll was segregated for insurance purposes. The total cost of each job was accumulated by item and element of cost from the payroll gang sheets. The cost reports were issued about two to three weeks after the job was completed and by that time were of little use to management. The cost of the clerical work was excessive.

A number of improvements were obvious. However, the final solution to the problem was not found until the operations had been carefully studied. It developed that each of several standard gangs contained a fixed number of men of specified payroll classifications and rates. The straight time gang rate per hour was determined for each of the standard gangs. The weekly payroll summary for each gang was verified simply by extending the straight time gang hours at the appropriate gang rate. Certain employees in each standard gang worked onshore and the others offshore. The percentage of payroll onshore and offshore was determined for each standard gang and was applied to the appropriate payroll total to determine the insurance breakdown. Most of the work was done by gangs with similar average hourly rates of pay, the dollars of payroll were recorded in total for each job and the labor hours were accumulated by item for each job. The cost of each item within the job was determined by the use of average hourly rates of payroll and payroll burden.

As a result of the new procedures, the job cost reports were issued within a few days instead of two or three weeks after the completion of the job. A substantial saving in clerical work was obtained which was evidenced by a reduction in overtime in this office and the absorption of some work formerly done by two other offices.

Quantity Records Problem—This company is engaged in the manufacture of pulp and paper. Extensive records were maintained of the inventory of logs. These records showed in board feet the quantity of logs in each raft by specie (Hemlock, Fir, Spruce, etc.) and by grade (#1, #2, etc.). One card recorded the totals for each raft and there was an additional card for each specie with the result that there were some five or six cards for each raft. The records were revised to record the quantities in thousand board feet. This eliminated more than 50 per cent of the numbers. It was then possible to record all of the information for each raft on one card instead of the five or six cards formerly used. The clerical work was reduced by more than 75 per cent and the month-end closing was facilitated.

A similar improvement was made in the sales department of this company where records of orders for paper were maintained in pounds. The procedures were modified to show orders in units of 100 pounds instead of one pound thus eliminating more than 50 per cent of the numbers and permitting the use of much more compact records.

The application of modern quality standards in our work can be of great benefit to the systems man.

(1) The study of the needs of the business for clerical service should give the system man an improved understanding of the point of view of management.

(2) Substantial savings can often be realized with little cost and disturbance to personnel from the elimination of unnecessary information and the simplification of procedures.

(3) The cooperation of employees for future system work is usually assured if we have established a reputation for eliminating excessive detail and making the employees' work more interesting. This can be particularly helpful in system work for a new company or department.

(4) When faced with the problem of a large backlog of unfinished work in an organization for which major system changes are planned, it is often possible to eliminate unessential information and use the time saved to dispose of the backlog of work and, in effect, prepare the patient for the major operation.

The cost of accounting and clerical services can be substantially reduced through the use of modern quality standards.

(1) A thorough understanding of the needs of the business is fundamental.

(2) Unimportant information should be eliminated.

(3) Form, appearance and exactness should not be overemphasized.

In systems work, we must adopt the businessman's point of view to develop satisfactory service at a reasonable cost. **s/p/a**

Classifying the Organization Structure

by A. L. Mettler

PLUNGING quickly into our thesis we can set some helpful ground rules by defining the term "organization" in the words of J. E. Walters: "Oranization is the division of work into its proper functions, jobs and elements, their arrangement into correct relationships and the assignment of them to individuals with clear definitions of responsibility, authority and duties which will accomplish the policies of the establishment."

We'll leave to the many good texts the description of principles of organization already scientifically developed and well accepted. We can better focus our attention on types of structure such as line and staff. In this area there is lack of complete understanding and room for contributions by the systems and organization planners. The objective is a better understanding of responsibilities, authorities and relationships on the part of all those who must work within the structure. The end product is coordinated teamwork throughout the company.

We can dispose of the term "line organization" as those departments, divisions, etc., organized to carry on the fundamental functions of the business, such as sales and manufacturing. Line activities (meaning any unit of organization) are primarily concerned with what to do, when to do it, and who will do it.

Most authorities seem to account for line organization in a straight-forward manner described by the definition just stated. Then they shrug off the remaining problem by classifying all other activities as staff. That catalogues the systems and procedures division, the industrial relations department and service activities such as the mail and messenger section all in the same classification. We can improve understanding if we refine our classifications.

Let's consider staff activities as: departments, division, etc., organized to advise and assist other activities but without line authority or functional control over such activities. Planning and advising are characteristics of staff work. This leaves to others the doing function which is a characteristic of line organization.

Since it is axiomatic to segregate staff functions as distinct from line functions in order to obtain adequate emphasis on planning, we stand to gain by distinguishing staff activities as such. If planning and advising are attributes peculiar to staff, lack of such functions would seem to disqualify certain activities from correct classification as staff. Still, many of those activities are not line since they do not directly create revenue by satisfying the fundamental functions of the business.

If activities such as accounting, treasury and purchasing, for instance, are neither line nor staff, how can they be properly classified?

Before answering that question, we want to recall that classification for organization purposes depends upon the nature of responsibilities, authorities and relationships with respect to all segments of the organization. In discussing accounting and purchasing activities as distinct from staff we are referring to the activities that actually perform the accounting and purchasing. We are not concerned with those corporate staff officers who are sometimes included in decentralized companies (organized by product line or region) as advisory to top management. In such cases we are referring to the accountant and purchasing agent who report to the general manager of the product line or regional organization.

These other activities, e. g., accounting, purchasing, etc., discharge specialized functions assigned to them by management and often spelled out in the corporate by-laws. Indeed, they seem to have the *doing* characteristic of line activities. The accounting department keeps the books, does the accounting. The purchasing department does the buying.

We can call these activities "auxiliary" and thus complete the organizational classification of the structure. Auxiliary activities do not plan and guide programs throughout other activities as staff activities do (industrial relations, for example). To clarify this distinction, the title "Director of Systems and Procedures" indicates guidance of a program throughout the entire company—a much bigger job than managing the analysts in the systems and procedures division.

Where the specialty of an auxiliary activity is carried on in another activity, the auxiliary activity charged with the responsibility for the specialty must have functional control over the activity which performs the specialty. For instance, the controller exercises functional

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What Plant People Want —

(Excerpts from a talk by Charles W. La Blanc, Research Institute of America, at Fifth Annual International Systems Meeting)

LET me just mention a few things that people want. We made a number of surveys in plants all over the country. They may vary a little bit here and there, but basically these are things which people want. The list is not necessarily in the order of their importance:

(1) They would like to be recognized as a person. They would like to be treated as an individual.

(2) Everyone likes to feel they are getting a square deal, and it is quite easy to provide them with that feeling, that awareness, that decisions are being rendered fairly and equitably.

(3) People want job security. How can we provide them with that feeling? Well, of course by emphasizing the necessity of cutting costs, by emphasizing the fact that these things must be done, in order to survive. By making them conscious of the economics of business. It is amazing how ignorant workers are in this regard. In fact, it is rather shocking when we find out how people interpret things.

(4) Workers like suitable working conditions. How many times have you heard of workers who refused jobs in plants paying far more money than they were getting because they liked the conditions where they were. One of the basic things that motivates us is to work in a place that we like.

(5) Most important—they like a chance to be heard.

(6) They also like to feel that the thing they are doing has some value. They take pride in their work.

(7) Of course, workers like a chance to learn. They like an opportunity to improve their knowledge about their jobs and about their company.

(8) They like and seek the help of leadership. If they go to their superior for assistance and don't get it, it's a little frustrating.

(9) They want a chance to prove themselves.

(10) They like a sense of belonging. They like to feel that they're a member of the gang. That's why most people are "joiners." We had a memo some months ago on why people quit and we made a rather extensive study of it. Our editors visited quite a number of plants, as well as a number of large employers of office help and it was shocking to find out how long it took an employee to gain a sense of belonging.

There are also certain foundations that can be used. Perhaps some of you have heard of these, but in order to strengthen these areas of relationship, there are certain basic foundations that seem to me to be particularly applicable to your work.

(1) Let each person know how he is getting along. Keep these people informed by telling them precisely what is expected of them, by telling them exactly what they are supposed to do, and by pointing out ways to improve. Don't wait until they sabotage the plant and then rave with them, but point out as they go along how they can improve.

(2) Give credit when due. Very simple, but so basic. The *when* is the important thing. If someone has done an unusual job, I don't mean to say we should come in in the morning and say, "Thanks for coming in—we are very happy you're here, thanks for being with us." It loses its significance. But when somebody has done something of an unusual nature, when somebody has stayed overtime for instance; when they have worked hard; that's the time to give them credit. Something as simple as, "You were right on the ball that time," will work wonders.

(3) Tell people in advance about changes that will affect them and tell them the reason why. Usually when they understand the reason why, they accept it. People resent changes. How many times have many hours of production been lost, simply because nobody even gave any thought to telling people ahead of time? I recall in one plant where they decided to repave one end of the parking lot. Nobody told anybody about it. This happened to be a narrow one way street. The cars tried to get in and of course it was jammed for about four blocks going one way. This caused a lot of lateness. Many of them were half hour or three quarters of an hour getting to their work places and the company docked them. A tremendous lot of trouble was caused simply because notice had never been given that X, Y, Z entrance "is going to be closed, because we are paving the parking lot for your convenience, making it better for you. Please use the A B C entrance." Tell people in advance about changes. Tell them the reason why. People resent changes.

I am sure you have experienced—I know I have—a situation where management decided that they were going to build some private offices for interviewing and that sort of thing. So they sent carpenters in one day and started putting up partitions. You should have heard the people squawk "Why do I have to work in that little cubby hole; I won't even be able to breathe. You are inhibiting me." I saw exactly the reverse happen, too, where offices became so crowded that they needed extra room, and decided to eliminate partitions. So they sent the carpenters in to tear them down. Again you should have heard the people squawking about that! "Do you mean, I am going to work in a glass bowl? I need privacy!"

(4) The last foundation for the relations that you will

find very helpful in your profession, it seems to me, is to make best use of each person's ability. Do this by looking for ability that is not now being used. It seems to me that in your work you can make a splendid contribution to your organization in this way. **s/p/a**

Co-ordinating Methods

(Continued from Page 8)

developed from his ideas which integrated cost, payroll, inventory, and accounting requirements. The engineering manager, I'm sure, could be sold on the importance of somebody doing something about the broad facts and data which his organization needs and which he has had in mind for years! And who is in a better position to do this than the procedures man?

The basic and most important function of procedures work, it seems to me, is to lead all the various departments, from a paperwork standpoint, along an integrated path; to have a clear concept of the major objectives of the business; to reduce them to major paperwork flows; and then to tactfully, relentlessly, and patiently fit together the various pieces in a manner which will eventually produce the result desired.

Development of office electronic devices will, of course, evolve slowly and soundly, but evolve they will. Their effective application will require the coordination of various routines into well planned and logically conceived program steps in which straight clerical operations, irrespective of function, will be initiated at souce points and with all subsequent clerical work performed mechanically. The savings in expenses from such a set-up will be of two types: first, that resulting from the general streamlining of operations, and the second that resulting from the faster operation of the machine over manual methods.

The first of these savings is available today and probably constitutes a major share of the overall economy which is generally associated with mechanical methods. In fact, it is the type of integration and streamlining which we have been discussing. It is obvious, therefore, that if a concern were to aggressively push procedures work on an overall integrating level today as against the piecemeal, clinical type of work generally associated with this function, they would not only begin to reap benefits of such work today, but would be ready for that tomorrow when the machine age will be the order of the day.

Classifying the Organization Structure

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control over customer billing that is done in a plant of the manufacturing department. In other words, functional control is authority over how something will be done. Without it, the top accounting officer could not correctly consolidate financial statements of subsidiary companies having their own accounting officers.

Thus we recognize the need for this third classification of organization as: auxiliary activities—departments, divisions, etc., organized to augment line activities by performing specialized functions. They have functional control over their specialties in other activities but do not have line authority outside their own activities.

With a clear understanding of the three types of organization, line, staff and auxiliary, there should be better assignment of functions. Activities should be grouped in correct relationships. Staff activities should not be burdened with "doing" functions such as office services which belong in auxiliary departments. Staff can then be confined to research, development, consultation, planning and advising—its logical functions which will pay dividends to the entire organization. Systems men will be better equipped to analyze and develop improvements in administrative policy and practice because responsibilities and authorities will be clearly apparent to all. **s/p/a**

Control of Business Forms

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You have inventoried your clerical operations. What you do with the charts afterwards is another thing, but you do have the road map. You do have the description of what is happening, where it's happening and when it's happening.

How do you inventory your finished records? That is just a plain physical count. You go down where the records are and you can count them either by drawers, or by cubic feet, or by pieces of paper, or whatever unit you choose to use. You will also get the age and the nature of the document and when you are through, probably you have recorded the findings on cards and you take those cards and you organize them, so you can tell how many payroll checks you have, in how many different places and what the ages of them are. Then having decided a table of longevity, or a disposal table, you can take proper action on getting rid of the dead material, putting the semi-dead material into low cost storage, and keeping the live material where you need it. After you get control, then you should worry yourselves about such things as design. Design is a physical thing.

There are a couple of other things that I do want to say about control. Obviously, you must have a plan—a management plan. By that I mean, management must say we are going to control forms. You can't have some one controller, auditor or someone else say we had better do something about this, "Look, Joe, you aren't too busy, you spend some time on this will you," and Joe immedi-

ately spends some time on it. You haven't got control, don't kid yourselves, that is not control. You may accomplish some good results, you probably will accomplish results. Don't confuse it with control.

Management must say, we are going to have a Plan. It must be set up on a staff basis. There must be personnel. Believe it or not, forms do not get controlled unless somebody does it and yet the hesitancy of management to assign personnel to the job, is one of the anomalies of the situation. They want forms control, oh yes, but "we just can't assign anyone to that. We haven't got anybody, we can't hire anybody, find somebody who isn't too busy and let him do it." It doesn't work! You must have a proper definition of responsibilities and authorities. If you set up your staff unit and have them go merrily into the production department and say, "You can't have this form," right there is the death knell of your controls, because they won't plan. They'll get the form, don't worry about that.

This Really Happened!

We saw one instance in which a department was using 63,000 a year of a legal size form. They were running it off on a mimeograph, because the forms control unit wouldn't give it to them.

It is improper to set up your staff control and have them violate the lines of authority. What you operate on is a joint responsibility. Your primary responsibility is given to the control unit and in order to tie them together you should have the using department appoint a contact representative and let him understand what he is to do. He and the control unit work together and in this way you bridge the gap between the line and the staff. There is no line group anywhere that likes the general idea of staff activities. They just don't like it at all. So, you must bridge that gap. Obviously you must sell your program because you do not have any authority of your own, you must work on the basis of assignment of responsibility.

You know there are three kinds of authority. There is the authority of position and heaven help you if you have to use it. It's no good. It's got to be on the organization chart obviously. Then there is the authority of knowledge. You either know what you are talking about or you don't, and if you don't people very quickly find out, but more important than any is the authority of acceptance. That comes about through selling. If you get the authority of acceptance then you are on the most solid ground possible.

Now what have we said here? First, paper-work is a production problem. Second, it is composed of those three areas, the raw material, the work-in-process, and the finished goods, just like your factory. In order to organize it you must take an inventory and we have seen very briefly how those inventories can be taken. Then you must have an organization plan, properly coordinated through the line and staff groups, in order to put the thing into effect. What I have done here is to cover, in admittedly a galloping horse method, the overall problem of paper-work control, particularly in relation to forms, which are the raw material. **s/p/a**

Simplified Filing

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that I mean, over 600 little filing systems. Everybody was a file clerk. When they analyzed what they were, what they amounted to, how they were used, they were able to reduce that below 200. Now that also very materially affected eventually, their stationary and stock room controls and the amount of material they had to carry. For ramifications of a plan, gentlemen, react completely throughout the office.

Of necessity if you are going to have a plan that works, you have got to have somebody that's responsible for it, whose full time, number one job, is the job of seeing that standardizations are maintained, that your training indoctrination is maintained that your manuals are kept up to snuff. When changes are made, corrections are made and all the other problems that go along with these things. Without it, I do not care how much money you spend, I don't care how much time you spend on it, if you don't end up with centralized supervision, it'll fall flat on it's face within six to twelve months, because everybody will start rebuilding their own little empire within their department. Your centralized supervision must of necessity be able to cut across departmental lines, because if they don't they will be entirely ineffective. If some department heads can say, "I don't want you in here, I will have nothing to do with it, I will run my own department," you will never have a record plan that will ever amount to a nickel. It's a full time, big time job and should be recognized by management as such.

Now the last grouping is of course, one that's being much discussed today, the retention and disposition schedule. Setting one up. There are very few companies that have an adequate plan. That covers a multitude of factors, and in setting up a plan, don't leave this to the last. It affects your entire filing system. You should determine the life of a record at the departmental level before you make any technical changes, because it may change your entire method of filing, method of reference and many other things. **s/p/a**